

Fig. 1

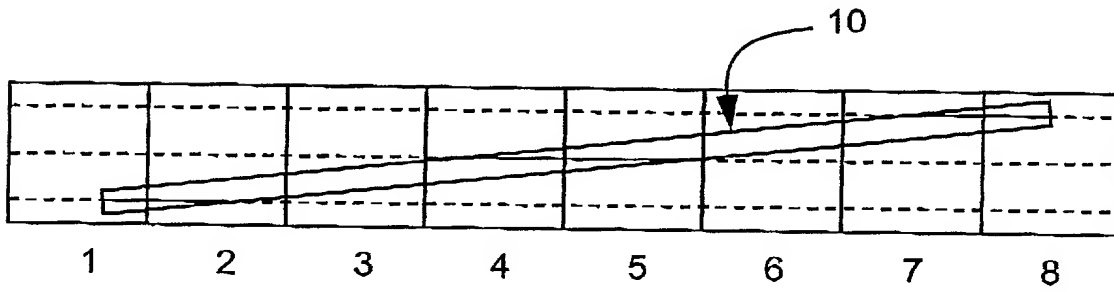
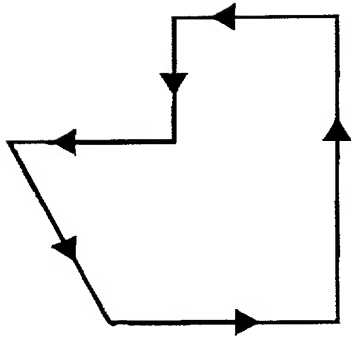
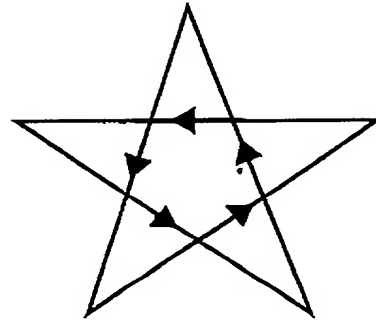


Fig. 2



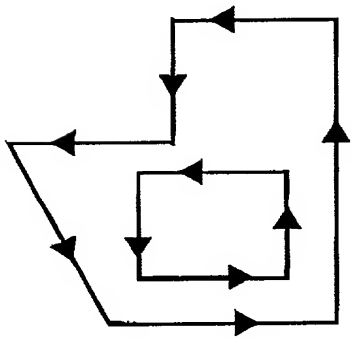
a simple polygon

Fig. 3A



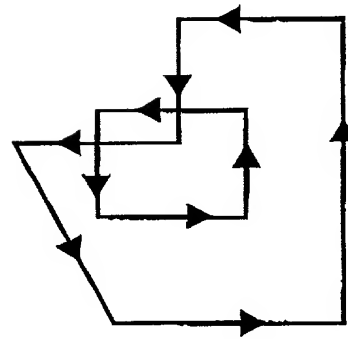
a simple, self-overlapping polygon

Fig. 3B



a complex polygon

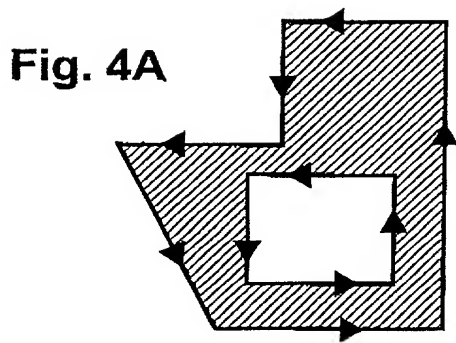
Fig. 3C



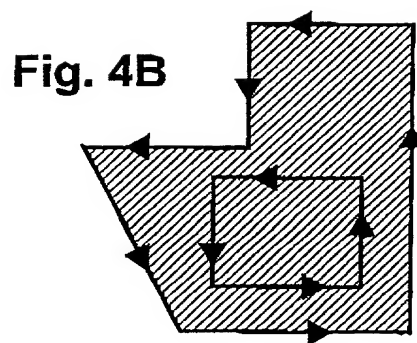
a complex, self-overlapping polygon

Fig. 3D

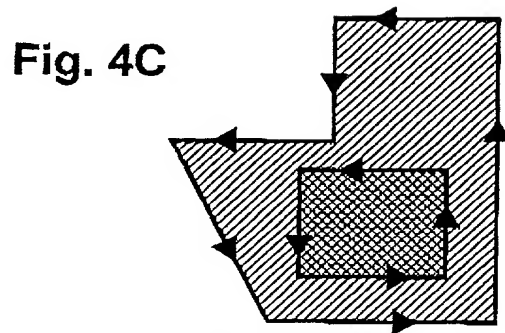
FIG. 3A



odd-even fill rule



**non-zero
winding fill rule**



**winding-counting
fill rule**

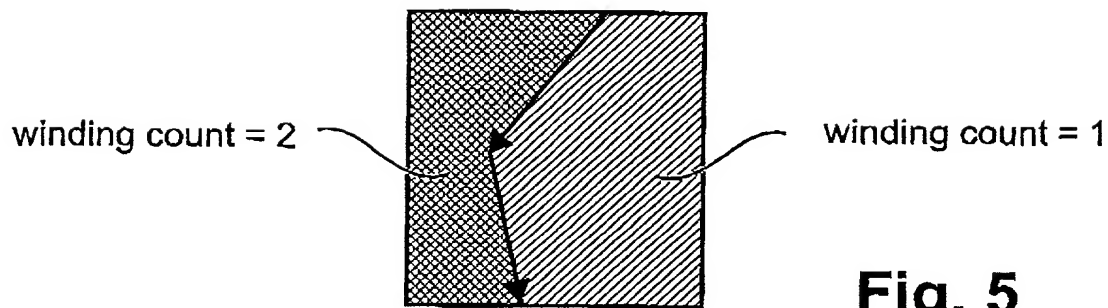
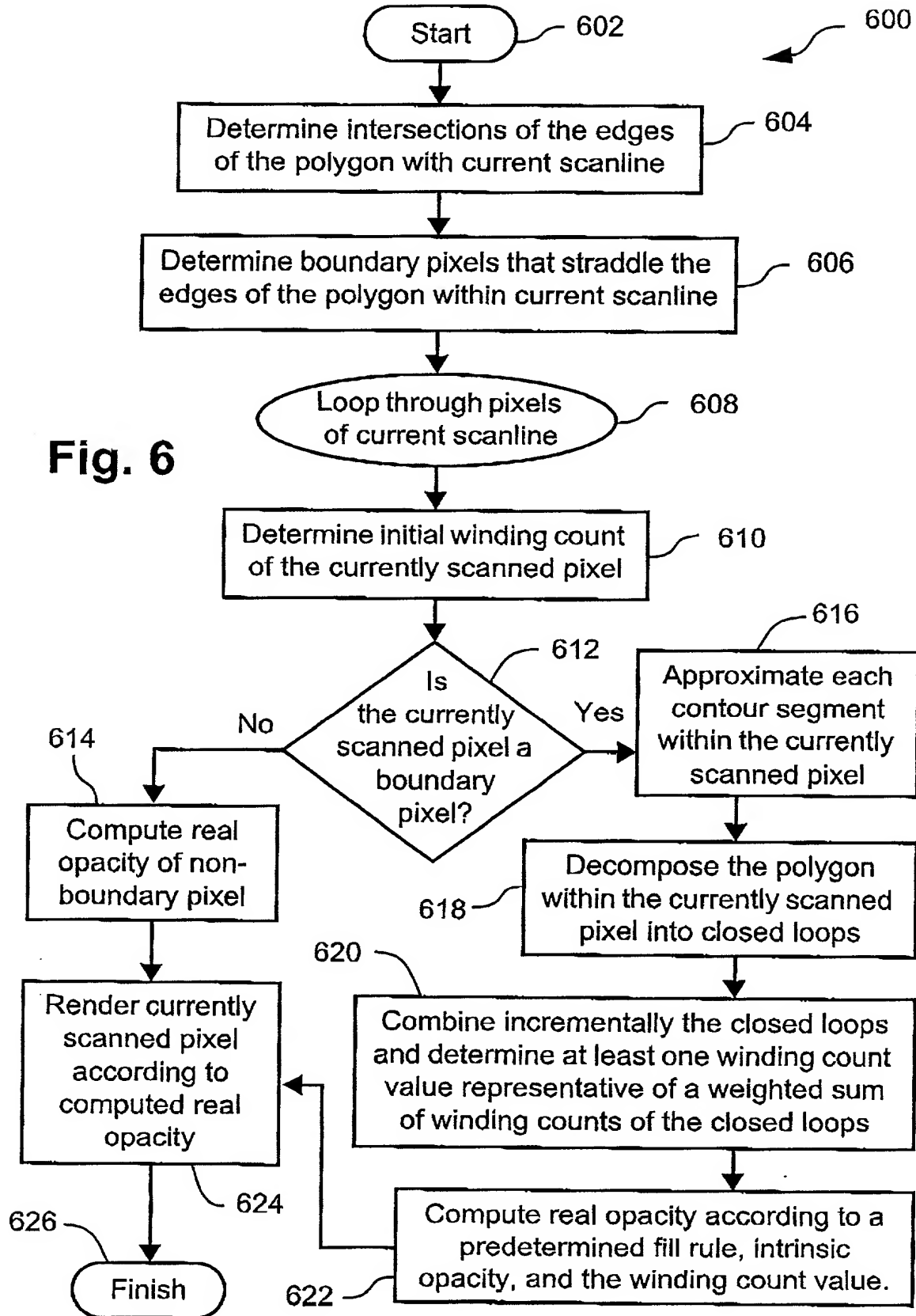


Fig. 5



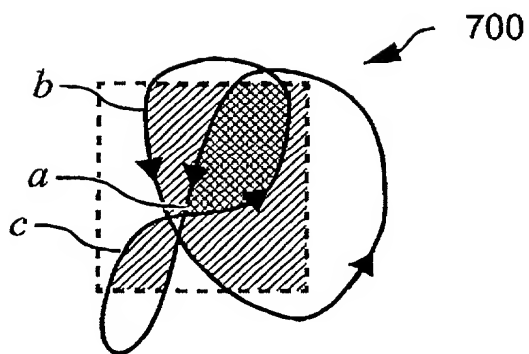


Fig. 7

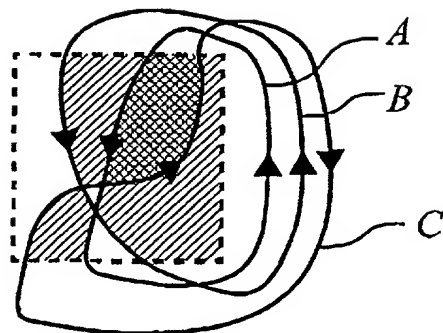


Fig. 8

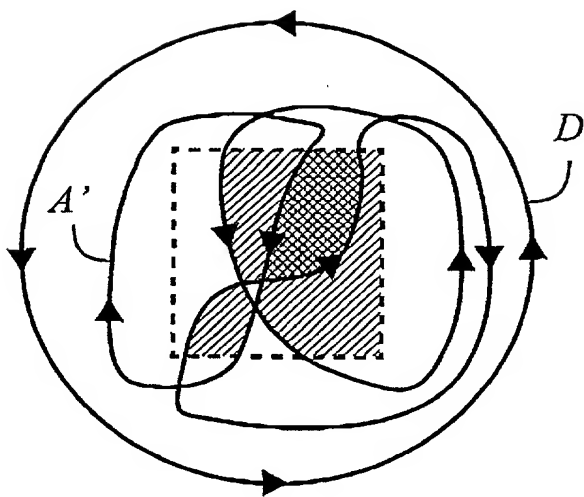


Fig. 9

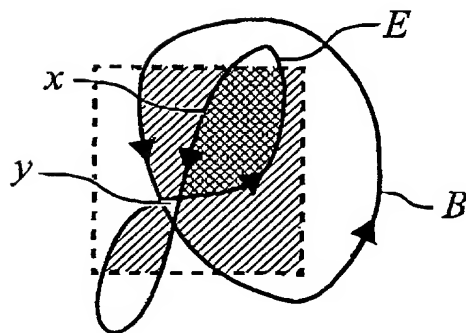
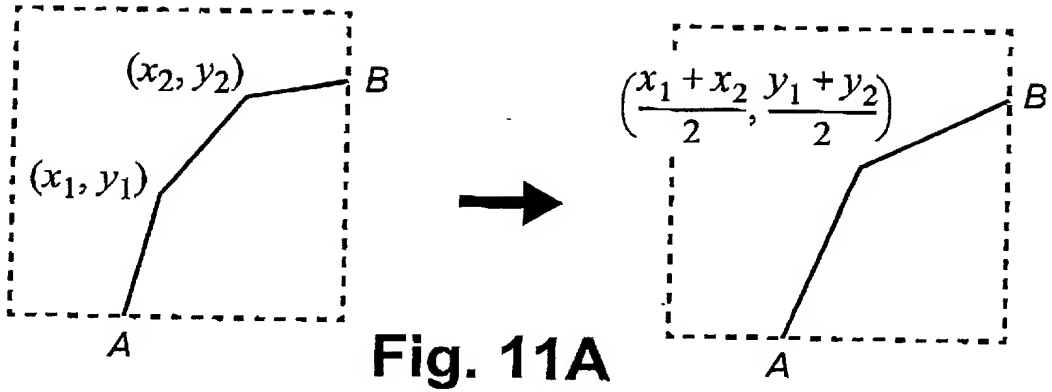
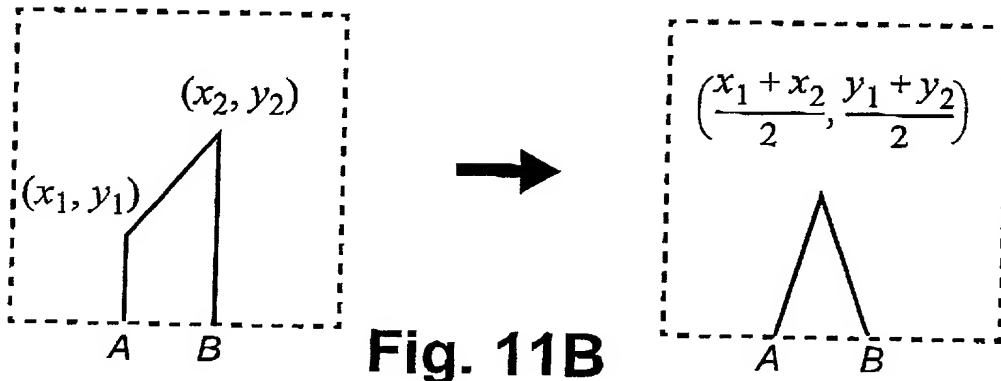
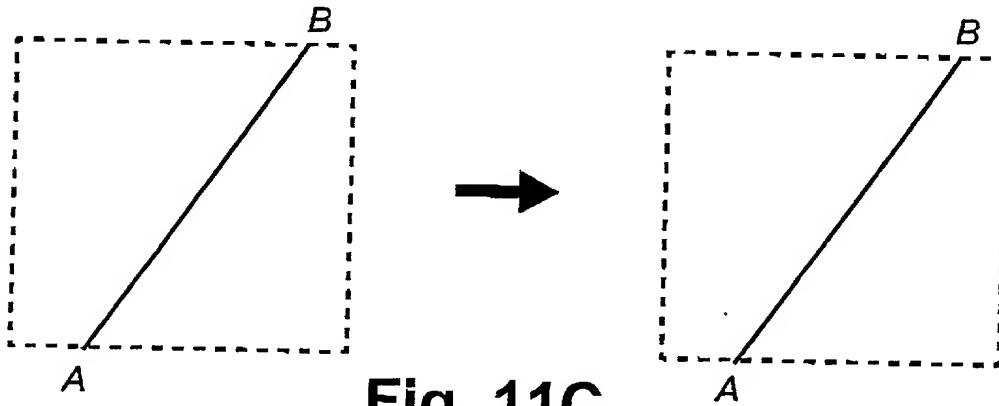


Fig. 10

**Fig. 11A****Fig. 11B****Fig. 11C**

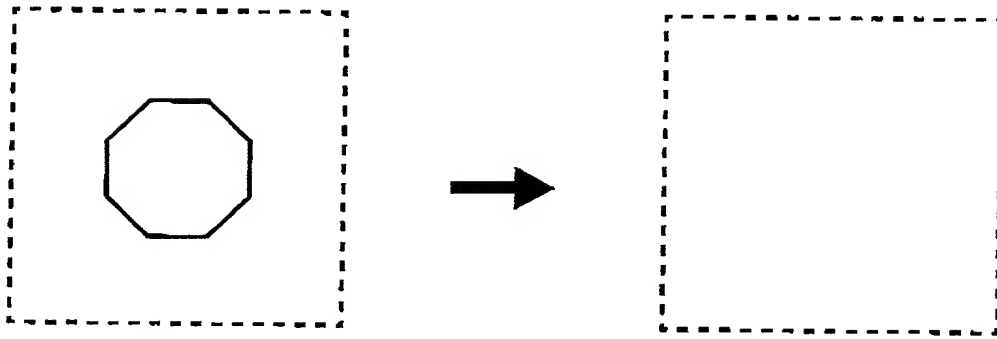


Fig. 11D

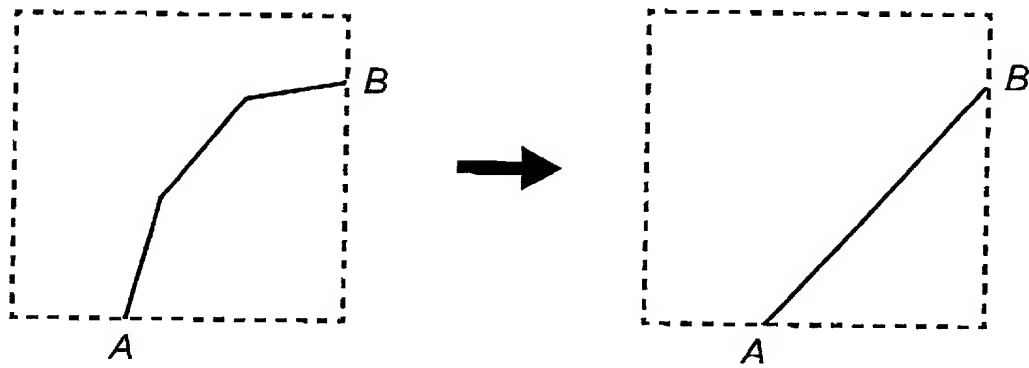


Fig. 12A

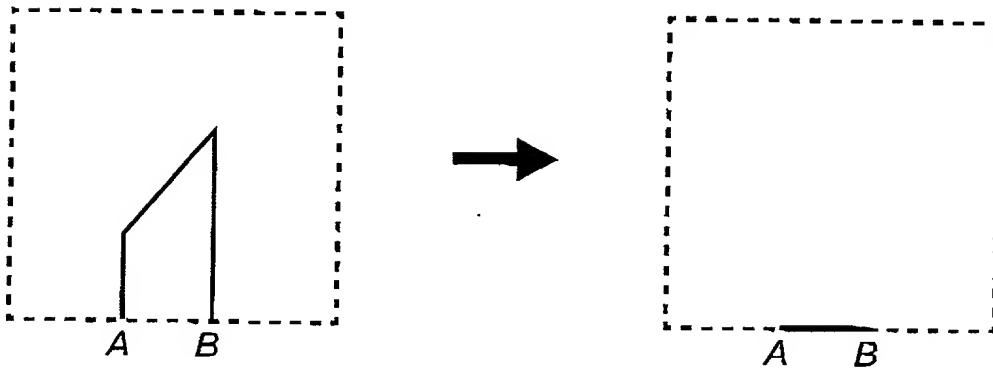
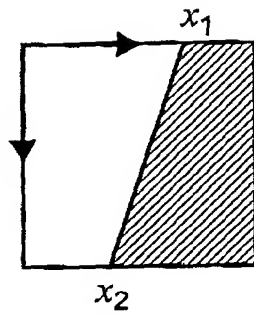
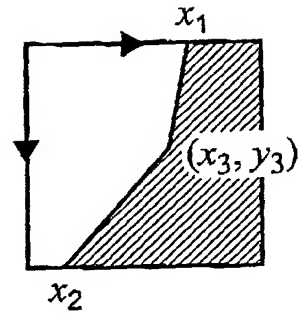


Fig. 12B



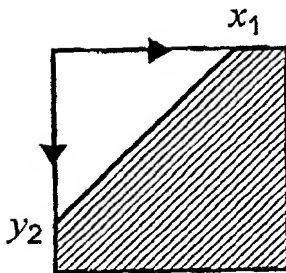
Type 1: $A = 1 - \frac{(x_1 + x_2)}{2}$

Fig. 13A



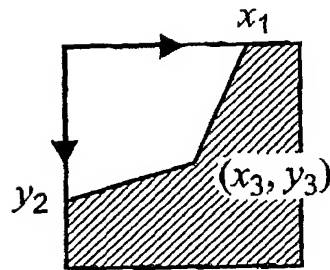
Type 2: $A = 1 - \frac{x_2 + x_3 + y_3(x_1 - x_2)}{2}$

Fig. 13B



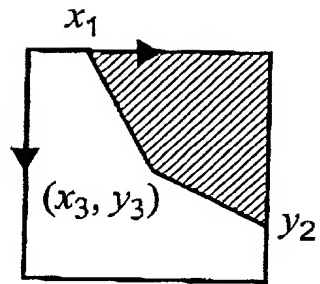
Type 3: $A = 1 - \frac{x_1 y_2}{2}$

Fig. 13C



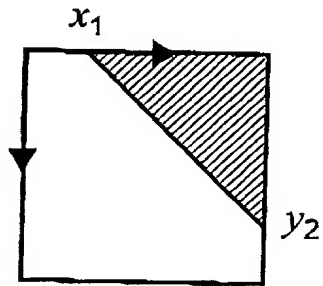
Type 4: $A = 1 - \frac{x_1 y_3 + x_3 y_2}{2}$

Fig. 13D

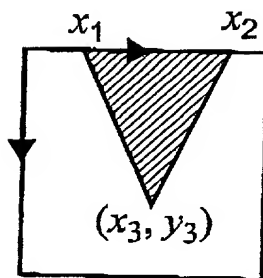
**Fig. 13E**

Type 6:

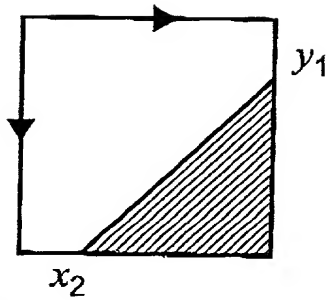
$$A = \frac{(1-x_1)y_3 + (1-x_3)y_2}{2}$$

**Fig. 13F**

$$\text{Type 5: } A = \frac{(1-x_1)y_2}{2}$$

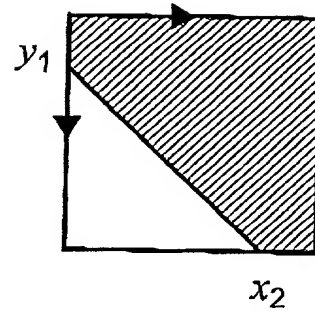
**Fig. 13G**

$$\text{Type 7: } A = \frac{1}{2}y_3(x_2 - x_1)$$

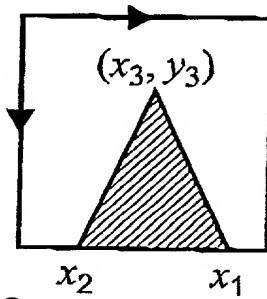


Type 8:

$$A = \frac{(1-x_2)(1-y_1)}{2}$$

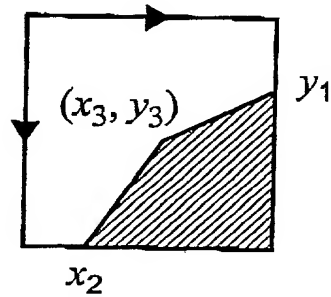
Fig. 14A

$$\text{Type 9: } A = 1 - \frac{x_2(1-y_1)}{2}$$

Fig. 14B

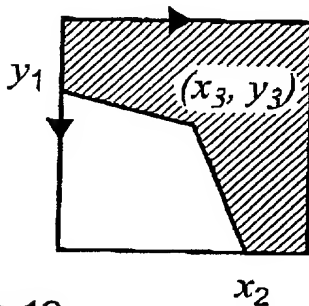
Type 10:

$$A = \frac{1}{2}(x_1 - x_2)(1 - y_3)$$

Fig. 14C

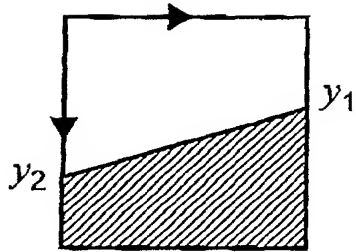
Type 11:

$$A = 1 - \frac{y_1 + y_3 + x_3(1 - y_1) + x_2(1 - y_3)}{2}$$

Fig. 14D**Fig. 14E**

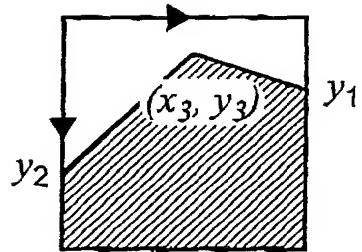
Type 12:

$$A = 1 - \frac{x_2(1-y_3) + x_3(1-y_1)}{2}$$



Type 13: $A = 1 - \frac{(y_1 + y_2)}{2}$

Fig. 15A



Type 14: $A = 1 - \frac{y_1 + y_3 + x_3(y_2 - y_1)}{2}$

Fig. 15B

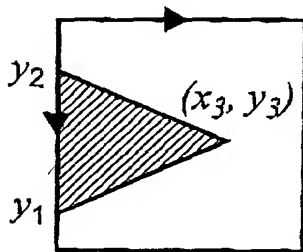


Fig. 15C

Type 15: $A = \frac{1}{2}x_3(y_1 - y_2)$

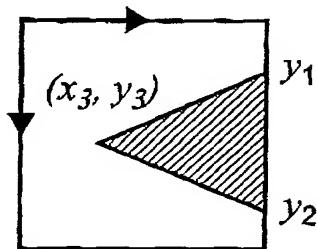
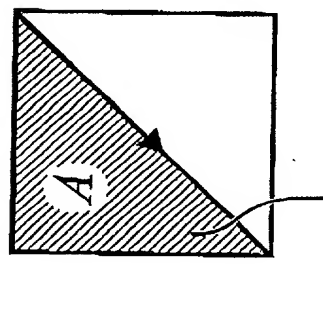


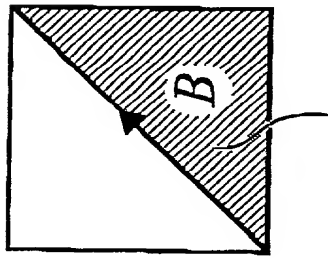
Fig. 16

Type 16: $A = \frac{1}{2}(y_2 - y_1)(1 - x_3)$



winding count = 1

+



winding count = -1

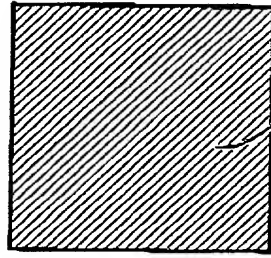
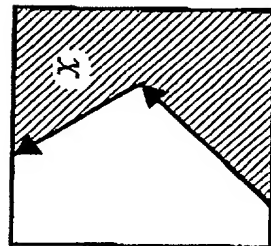


Fig. 17

average winding
count = 0



+

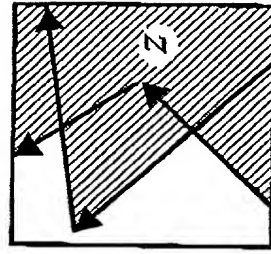
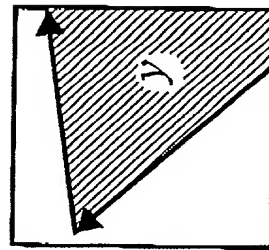


Fig. 18

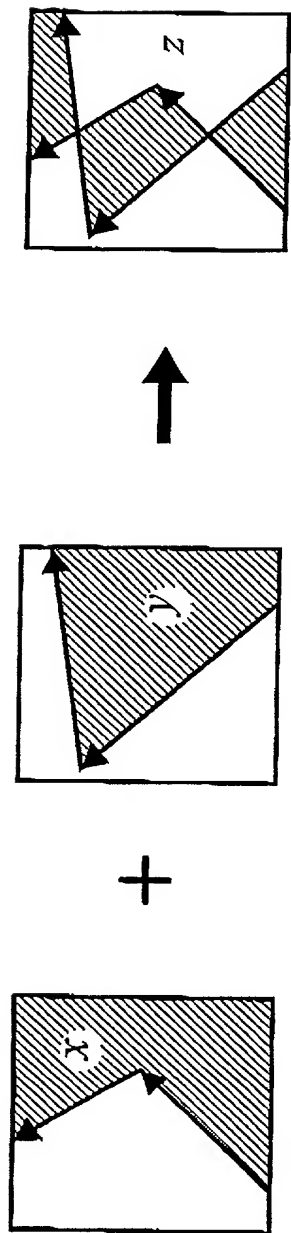


Fig. 19

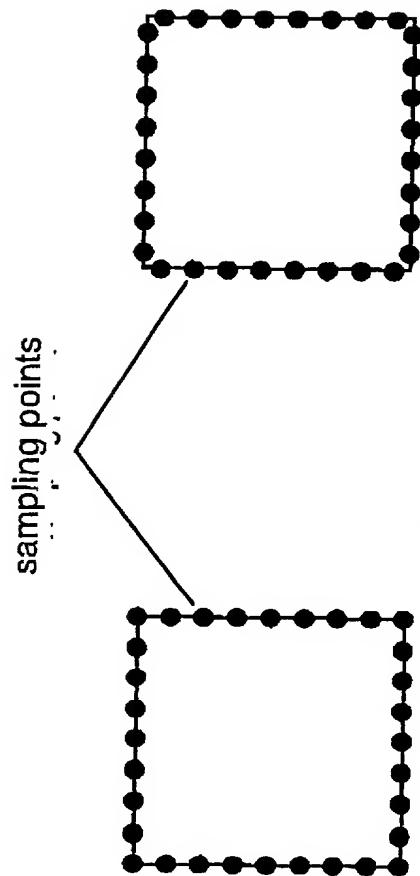


Fig. 21

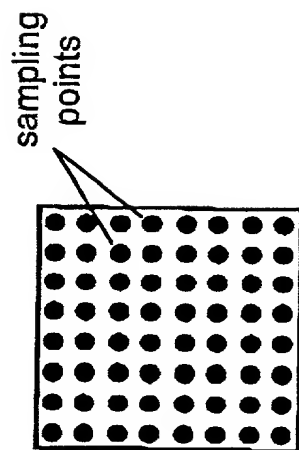
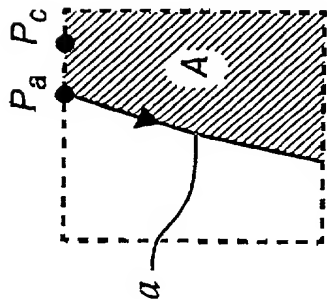


Fig. 20



+

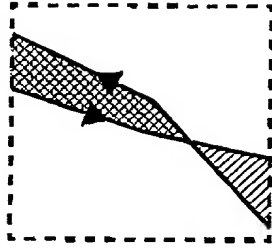
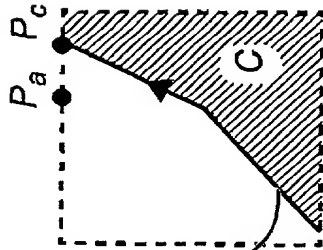


Fig. 23

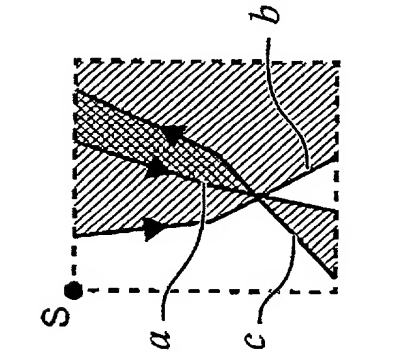


Fig. 22

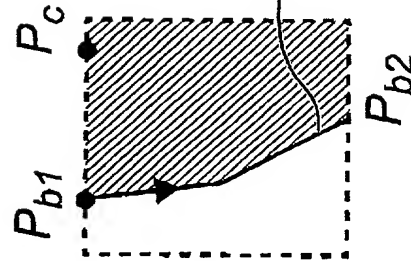


Fig. 24

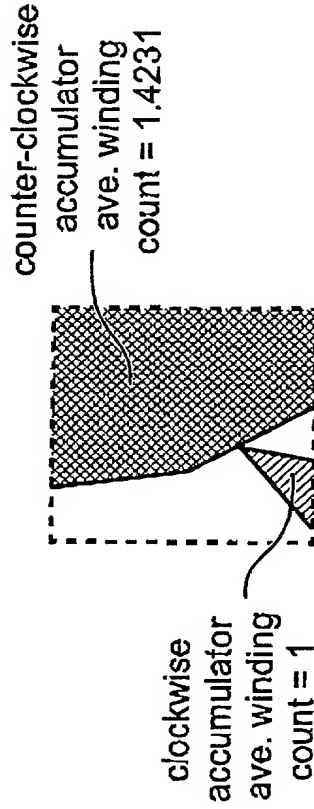
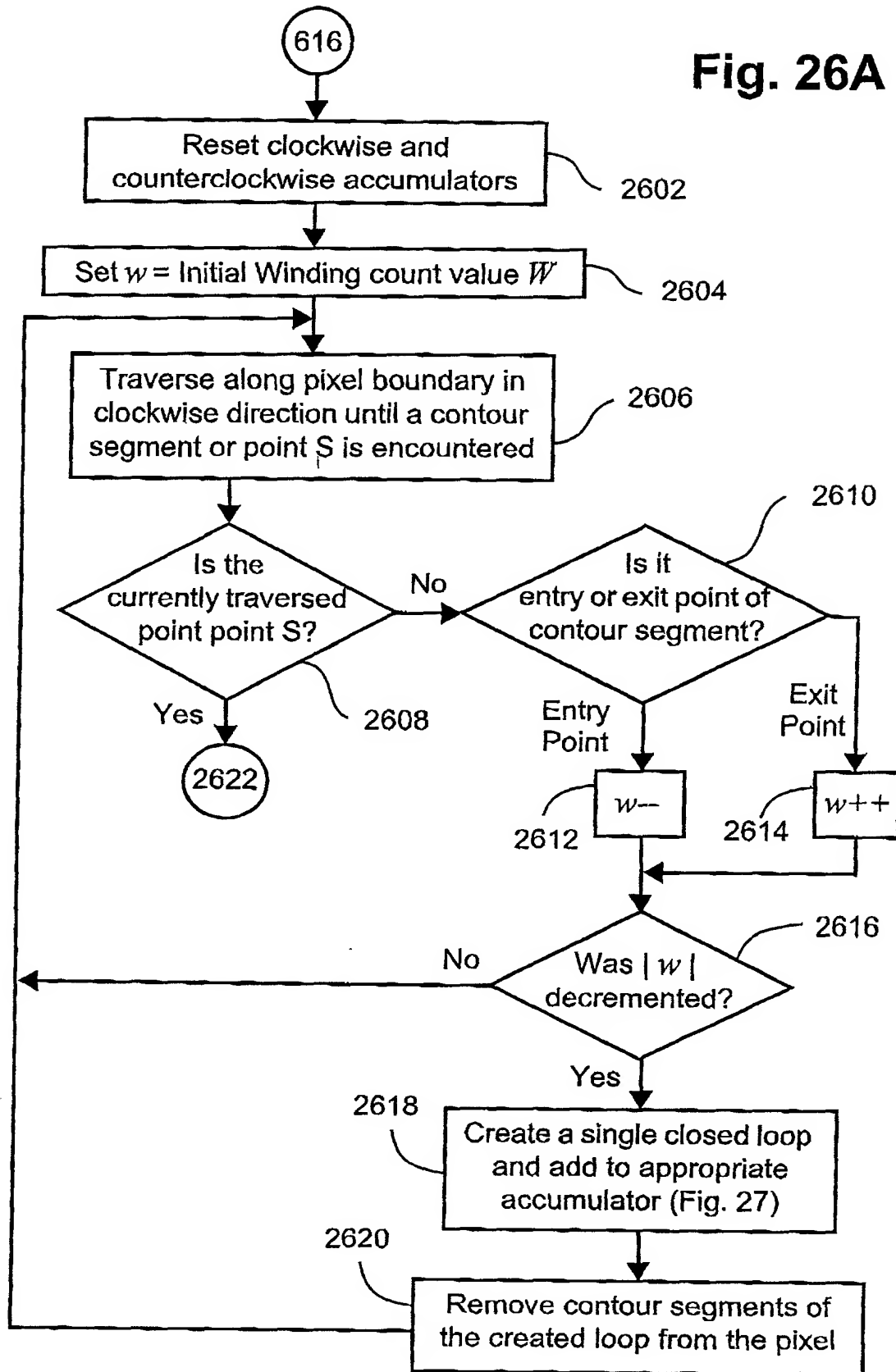


Fig. 25

Fig. 26A



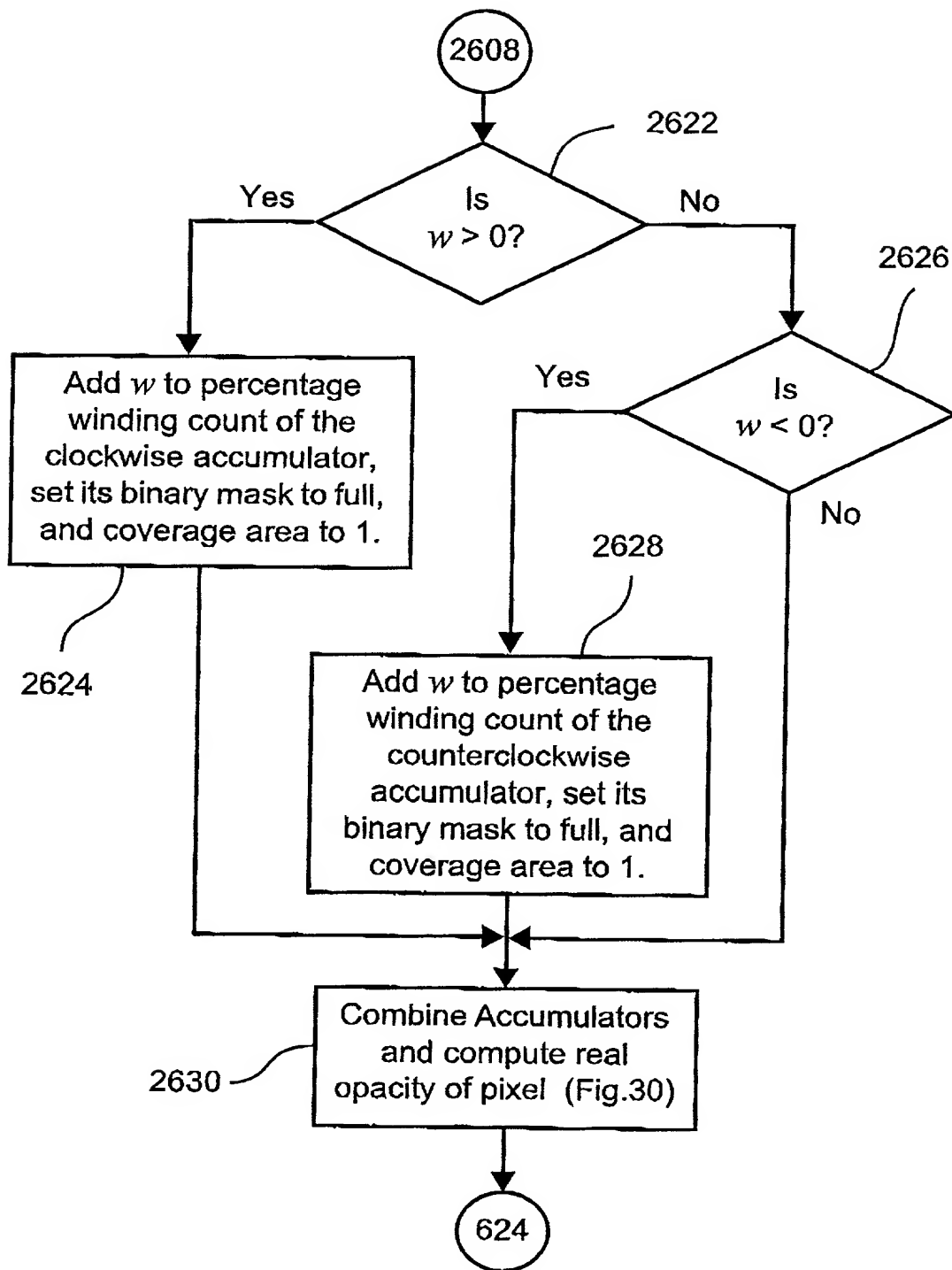
**Fig. 26B**

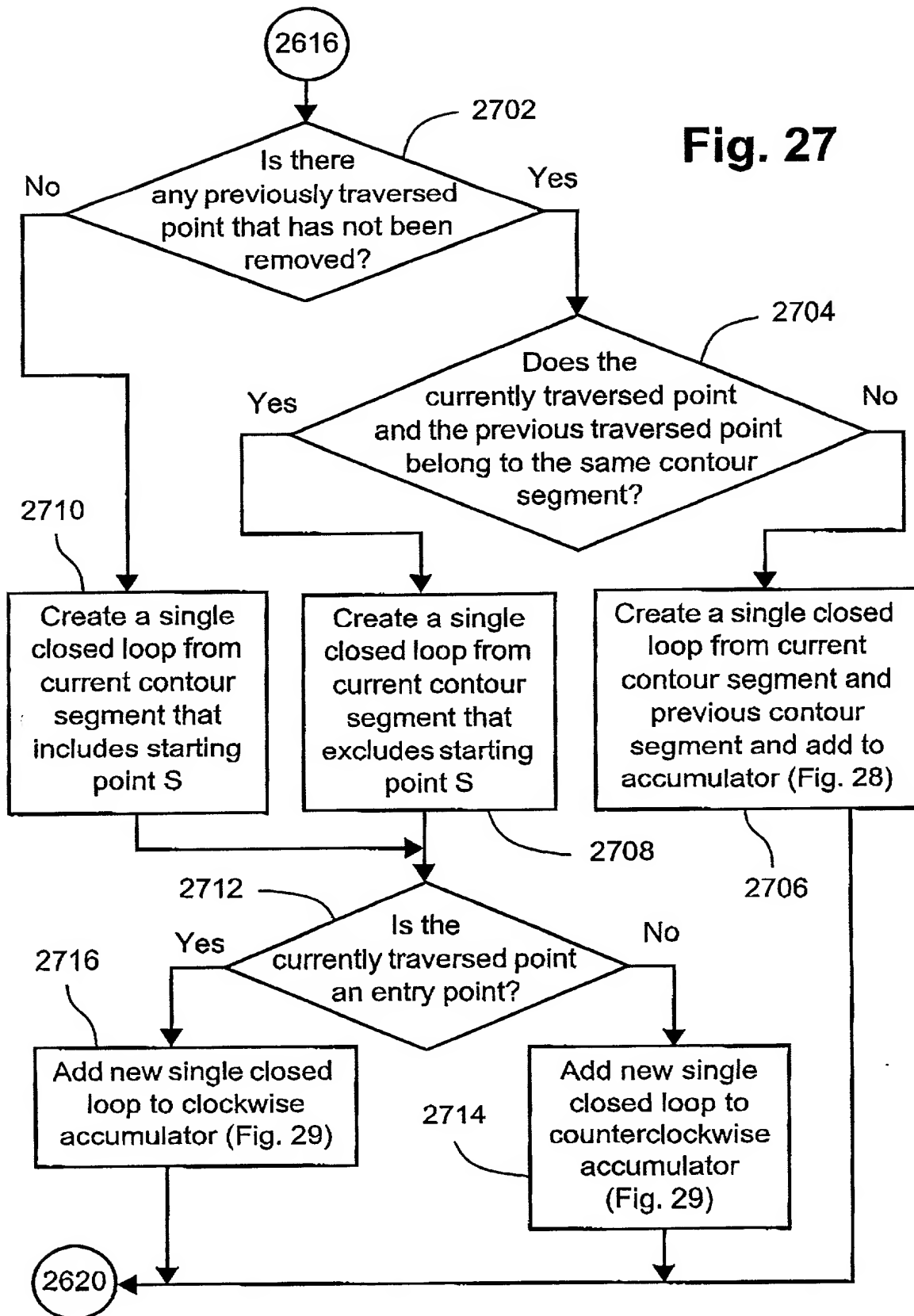
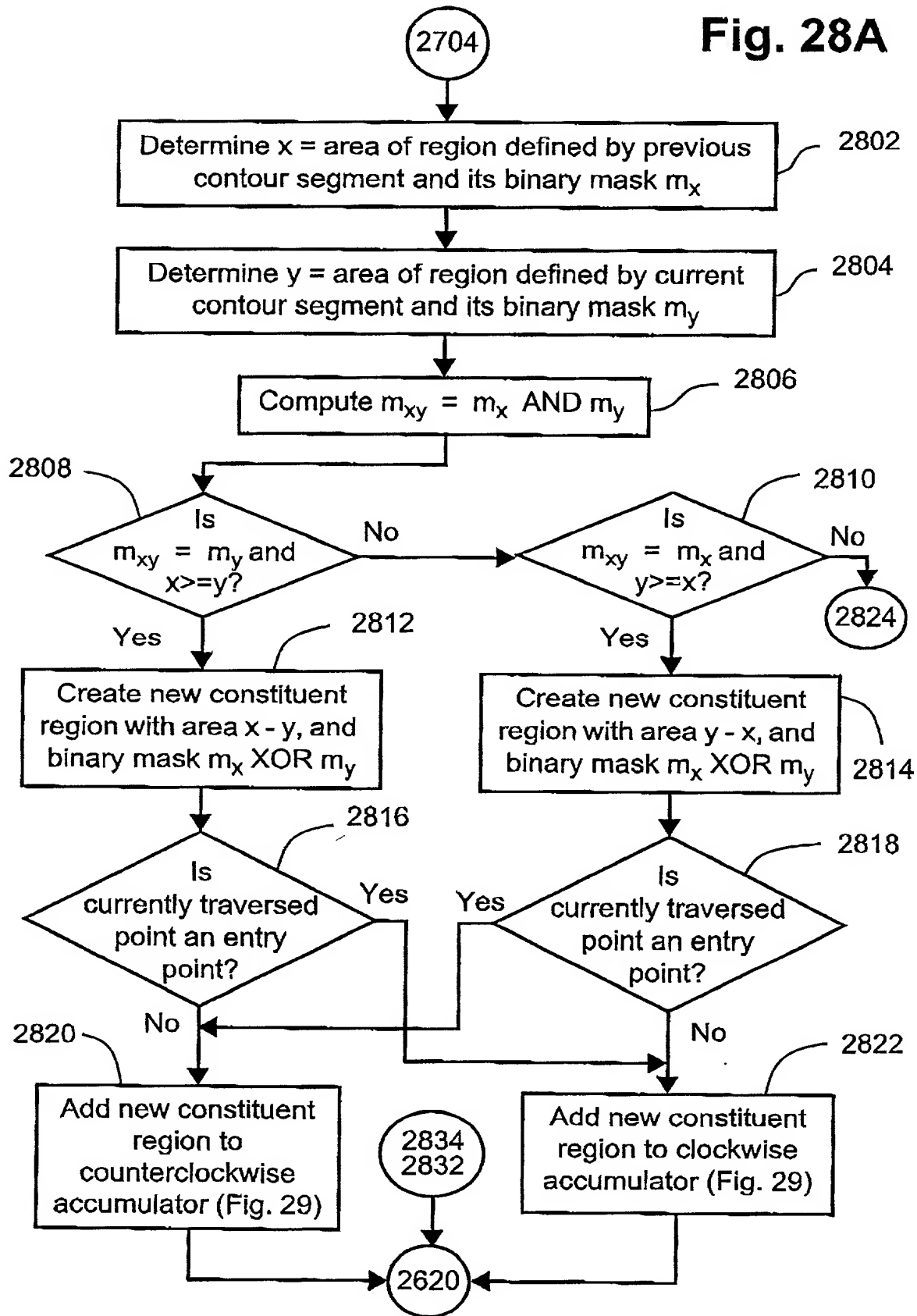
Fig. 27

Fig. 28A



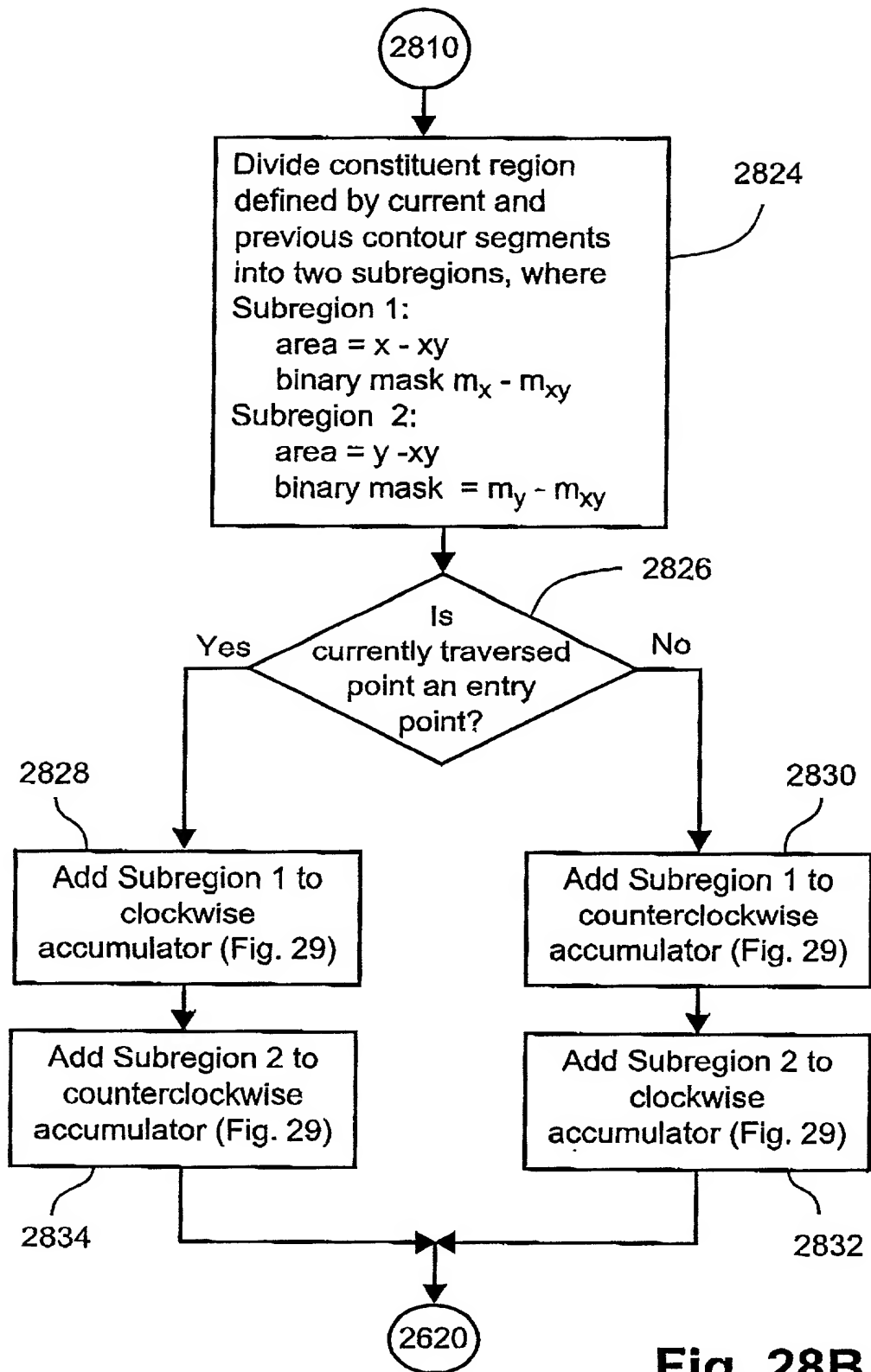


Fig. 28B

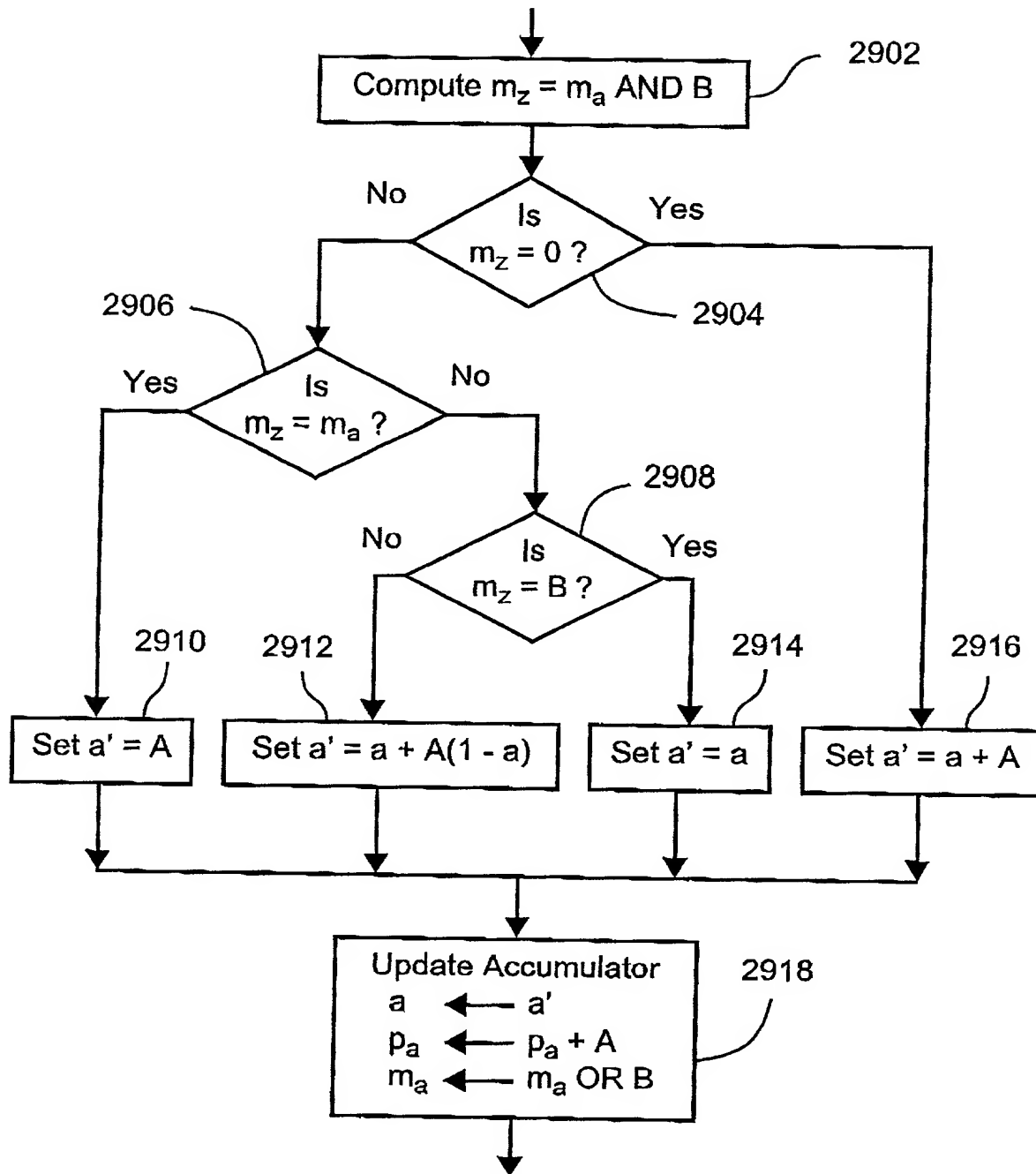


Fig. 29

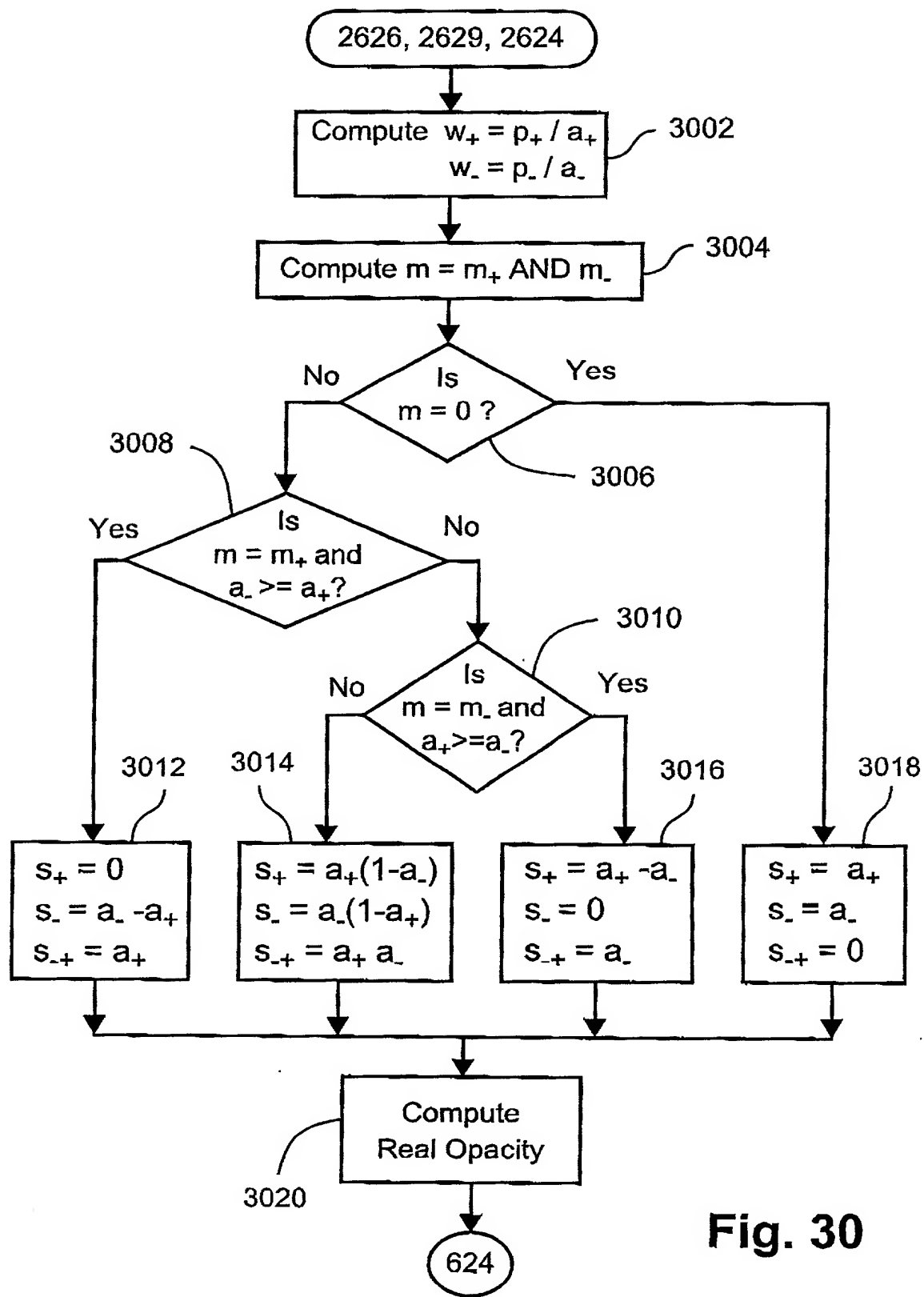
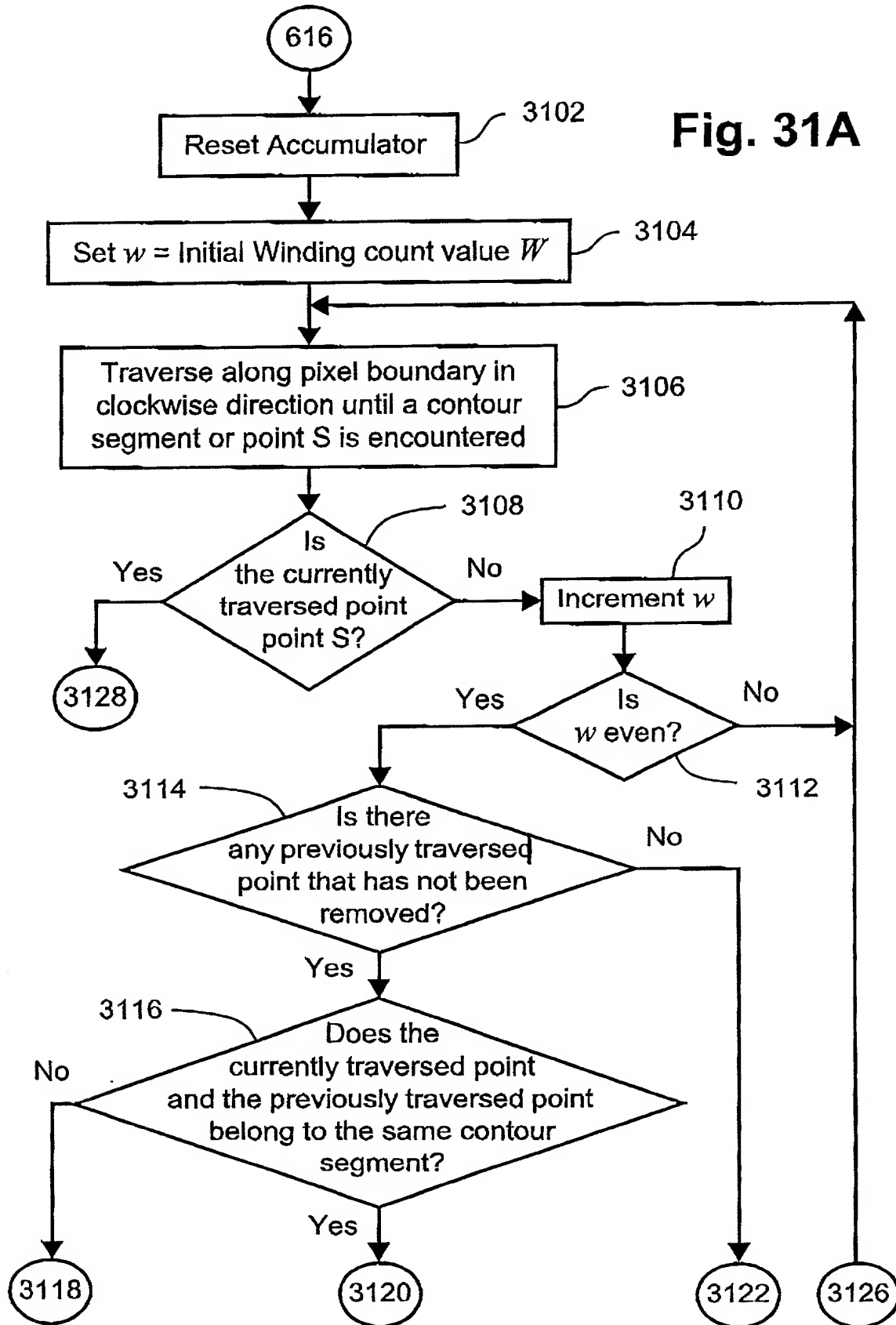
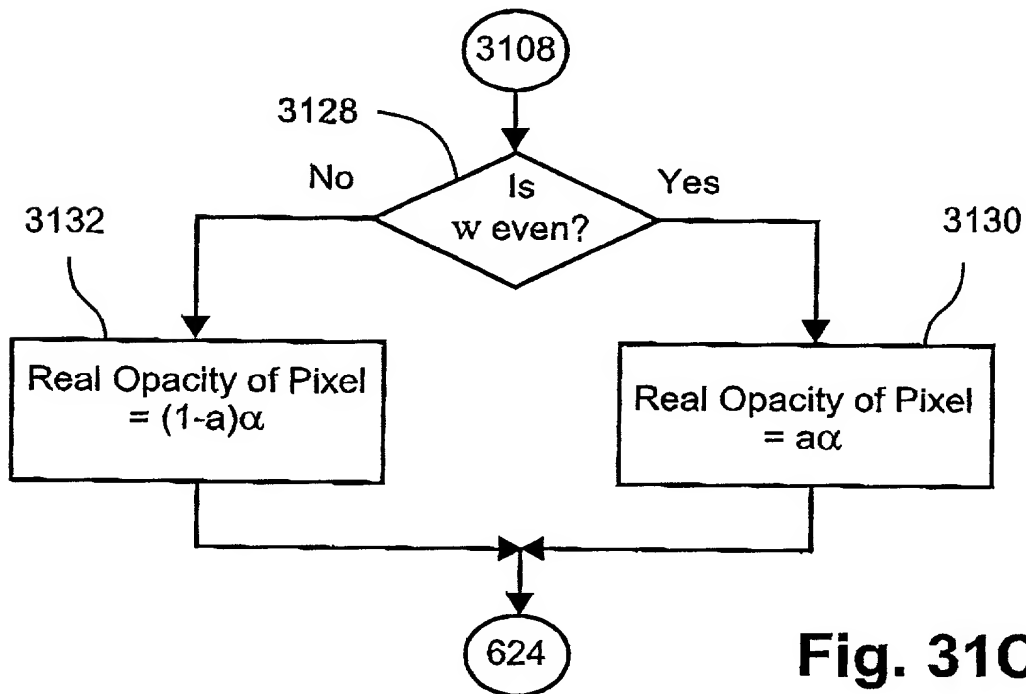
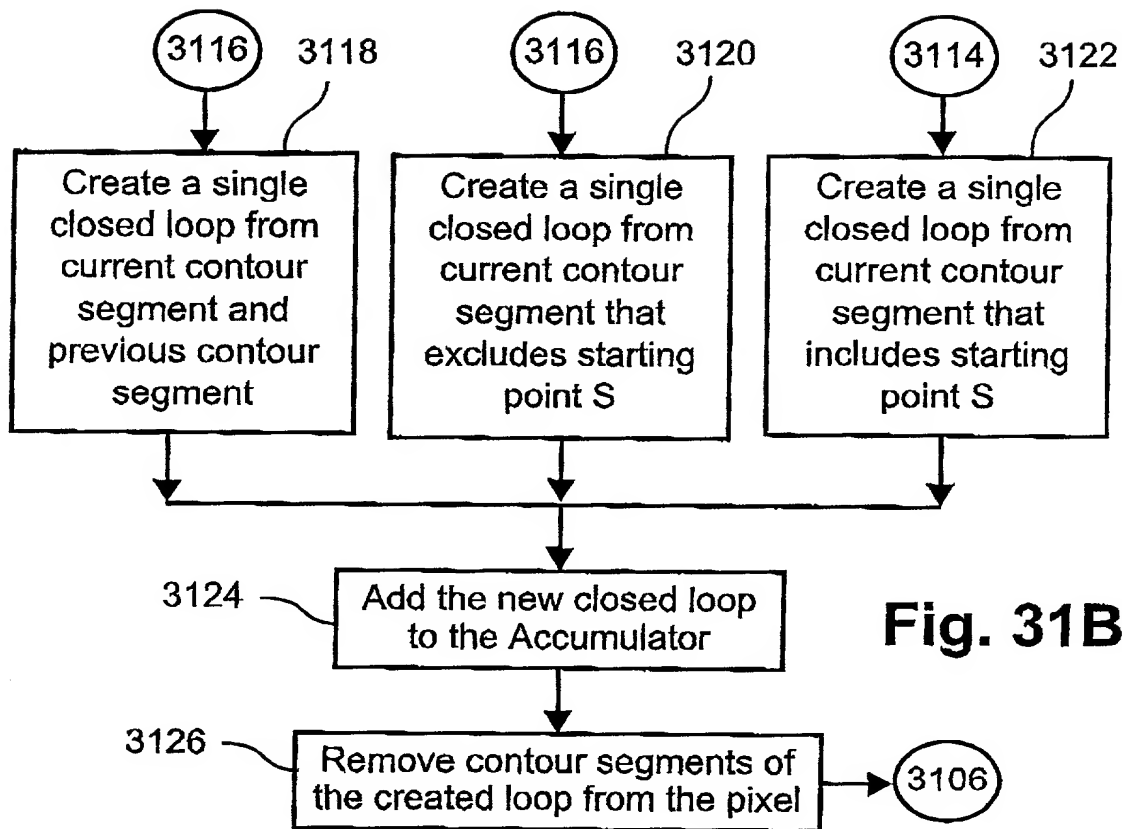


Fig. 30

Fig. 31A





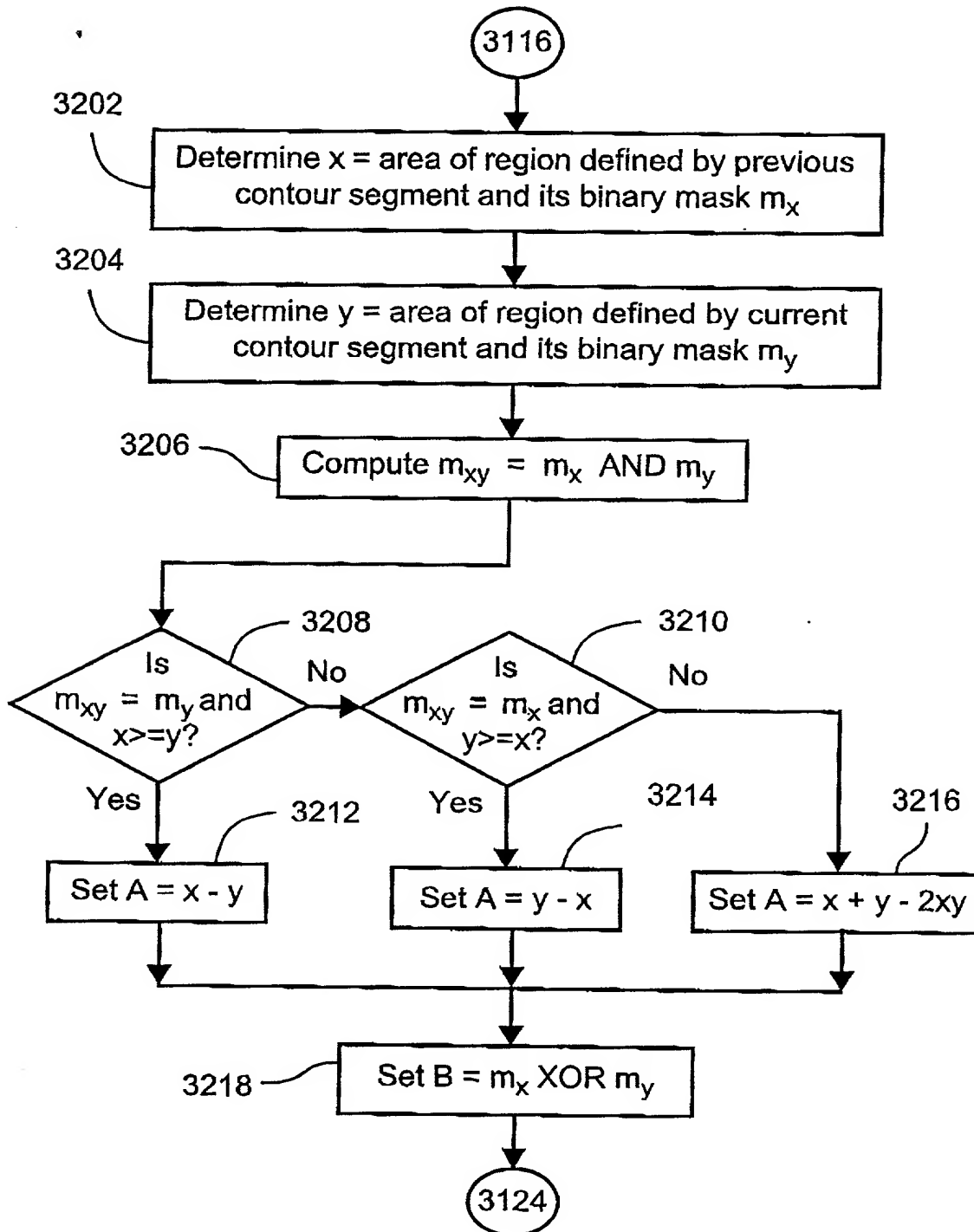


Fig. 32

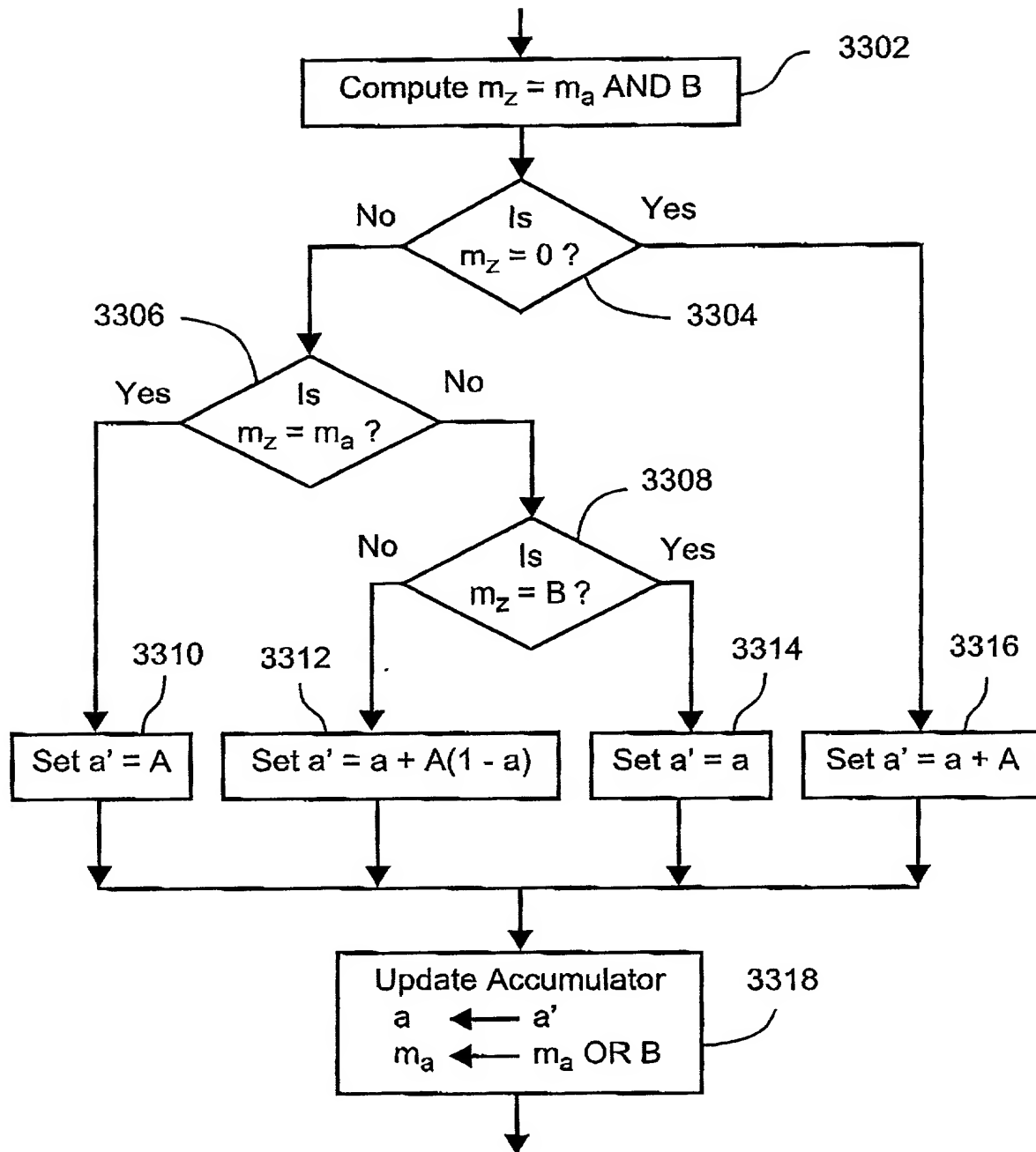


Fig. 33

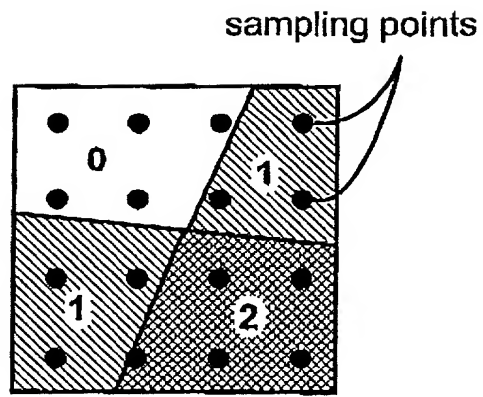


Fig. 34

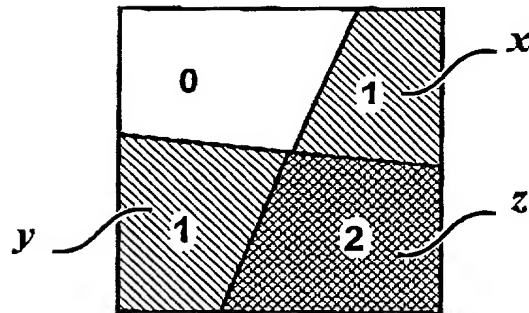
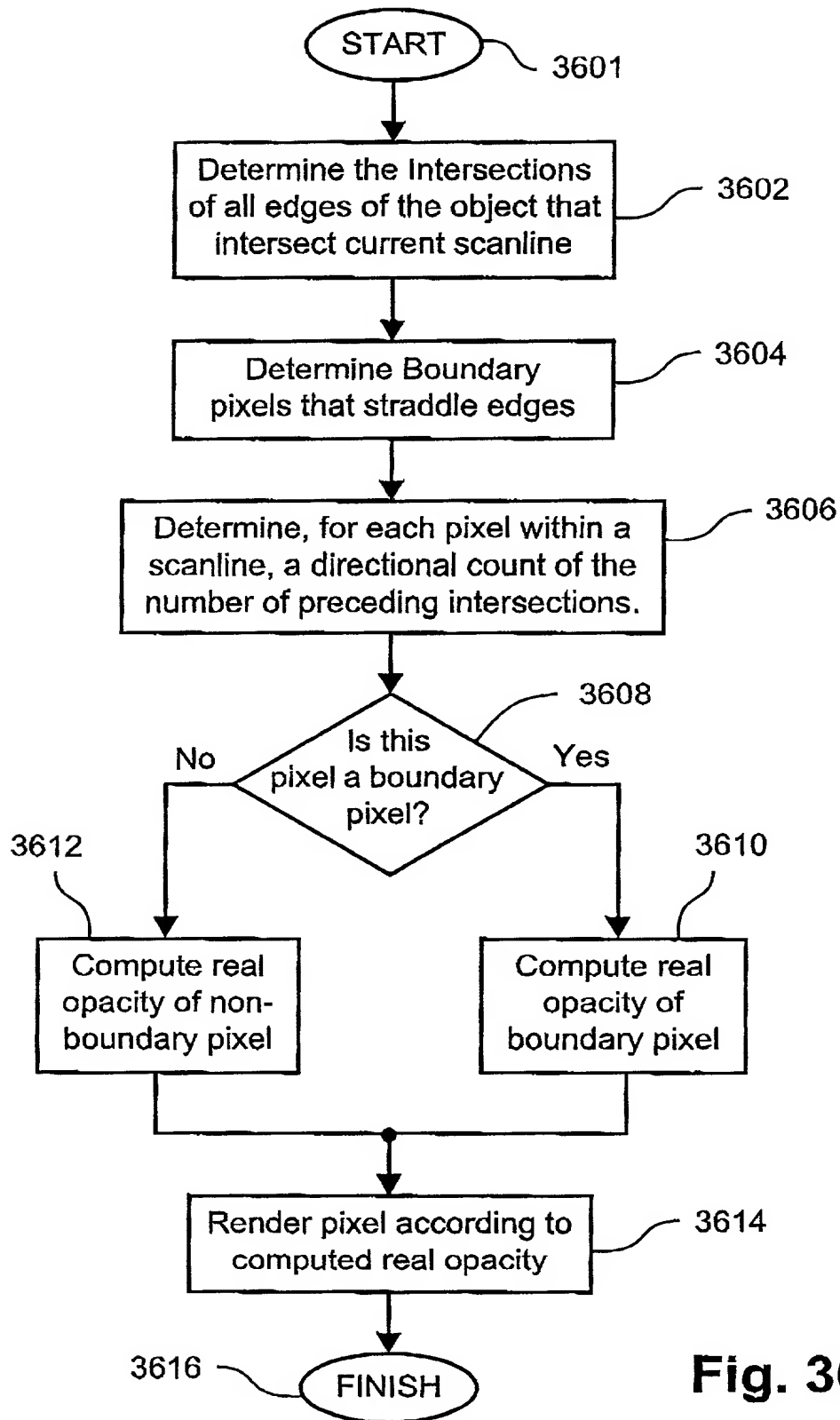


Fig. 35

**Fig. 36**

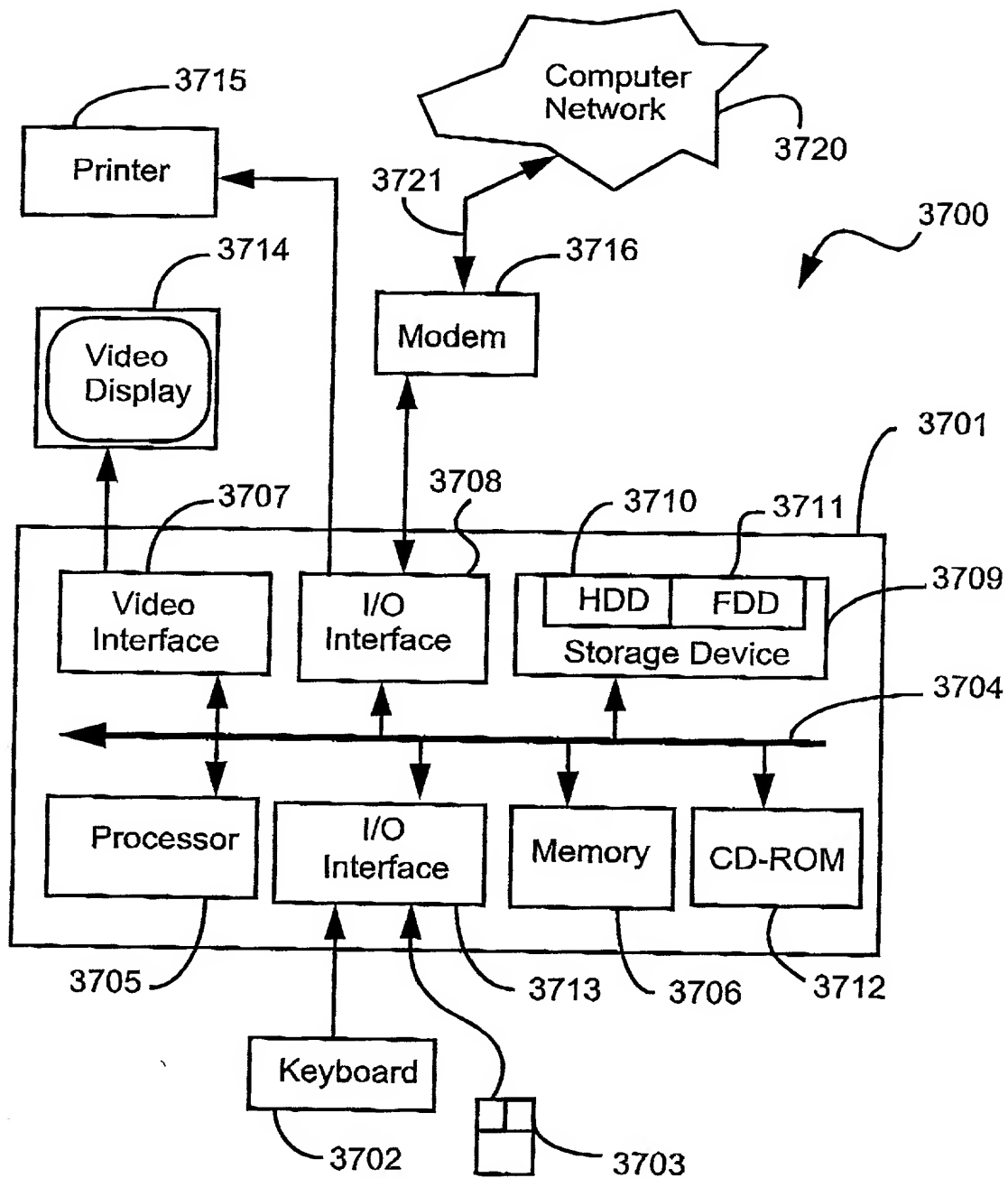


Fig. 37